

UNIVERSITY OF NOTTINGHAM



DEPARTMENT OF PSYCHOLOGY

Long Cane/Orientation Training
for Blind Pedestrians

by

Dr. J. Alfred Leonard

Reprinted from Insight 1969, 4/5

HV1708
L552
L850



**M.C. MIGEL LIBRARY
AMERICAN PRINTING
HOUSE FOR THE BLIND**



Long Cane/Orientation Training
for Blind Pedestrians

by

Dr. J. Alfred Leonard

Reprinted from Insight 1969, 4/5

HV1708
L552
L850
Copy me

LONG CANE/ORIENTATION TRAINING FOR BLIND PEDESTRIANS

by

Dr. J. Alfred Leonard

Man is predominantly a visually orientated and dominated animal. Almost all aspects of our daily lives, other than those concerned with listening, are either wholly or largely mediated by sight. Thus for those without sight - whether congenitally or adventitiously blinded - almost all the the major activities of life require solutions in non-visual terms. Classically these major areas are thought of under three major headings: communication, employment, and mobility. Clearly these three areas are by no means independent of each other but for the purpose of this paper I wish to concentrate on mobility alone. In this country we pride ourselves on the degree of success which has been obtained in the fields of communication and employment for the blind. It is not for me to say whether or not this pride is justified. There is, however, little doubt that as a country - both on the statutory and the voluntary side of services for the blind - we have tended to show a very serious degree of neglect in the field of mobility; a state of affairs which for the past few years has happily undergone a very considerable change.

That is not to say that no efforts had been made at all in this most vital sphere prior to that time.

Mobility is vital not only to those of us who are sighted but equally to those who are blind. Le Gros Clark, himself blind, put it like this: "The chief sphere is that of free mobility. This limitation can never be completely circumvented. It is the basic biological factor with all animals".

For many years individual blind people have managed to attain astonishing degrees of independent mobility, and every now and again devoted men and women have sought to teach mobility to youngsters at schools for the blind and at rehabilitation centres. The guide dog movement had been strong in this country for over 30 years. But there was no attempt to view the problems of mobility as a whole.

The war-time experience cited by Walter Thornton was by no means atypical of later days: "Before the sessions, the escorts would gather up their charges and take them to the Training Centre. Wire fences, along which we could run our sticks, were sited round the huts, and along the path through the fields leading to the Longmynd Hotel, to help us find our own way. This was the big surprise to me. Pleasant though it was to be escorted by a charming female companion, I had not expected such attention, and was amazed that the training schedule contained absolutely nothing on orientation techniques." Since the end of the Second World War, a far-seeing St. Dunstan's has encouraged research that includes guidance devices and eventually led to the Sonic Aid, invented by Professor Leslie Kay. After more than seven years of development it is only just now that some blind people are able to take advantage of it.

During all this time a magnificent training scheme in mobility was available in the United States. It was developed by one Richard Hoover for blinded servicemen, towards the end of the last war and it was taken over eventually by the U.S. Veteran's Administration, whose rehabilitation centre at Hines is still the outstanding example of putting training into practice. The scheme ran into a lot of opposition even in the U.S. but by the early 'sixties some universities started to provide postgraduate courses for sighted instructors, employed by statutory and voluntary agencies.

Soon afterwards I went to the U.S. specifically to study this form of mobility training, and reported to both RNIB and St. Dunstan's. By the next summer both ran an evaluation project in the U.K. with the help of U.S. instructor, and both found the idea acceptable.

In the autumn of 1966, RNIB brought over a U.S. instructor for six months to train the first group of six men and women instructors, and Walter Thornton approached the Viscount Nuffield Auxiliary Fund for financial support to set up a non-residential training centre in Birmingham for both sighted instructors and blind "clients", as they are now called. VNAF made a two-year grant to the Department of Psychology, University of Nottingham (which had just embarked on a long term and intensive mobility research financed by the Medical Research Council).

This was subsequently extended by a further year to provide the major support for what came to be known as the Midlands Mobility Centre. In its three years this Centre has trained some 40 instructors and a slightly larger number of blind clients. In the autumn of 1969 it was renamed the National Mobility Centre, run by a consortium of RNIB, St. Dunstan's, and the Birmingham Royal Institute for the Blind, and is now the sole mobility instructor-training facility in the U.K.

What of the mobility skills that are being taught now? They are based on a systematic approach to the problems encountered by blind people when moving about and embody much of what many blind people had hammered out for themselves. It uses as its tool an aluminium cane as shown in the photographs, of a length suited to the individual. Held with the hand in the midline position of the body, the tip of the cane can sense the area ahead of the blind person. The basic *modus operandi* is shown in the succession of photographs. You will note that the client is moving the cane in synchrony with his steps, and in such a manner that the tip of the cane is now where the rearward foot will be next. The operation is by no means as easy as it may appear and much training is required. It is important, furthermore, that cane-handling, however basic to the rest of the achievement, be only one of many facets taught. It is basic because on the quality of cane-handling everything else ultimately depends. The cane, having truly become an extension of the sensing hand, provides safety, since by its proper use the blind person can protect himself from falling foul of any sudden drop or from any obstacle rising from the ground. But the cane can do more than that when properly used. It provides information about surface textures and unevenness and it can make up for some of the deficient sense of equilibrium. The client learns to describe an arc with the tip of the cane which is just about the width of his own shoulders. On even ground surface contact at each extremity may be half of the whole area covered, while on uneven ground the tip may do no more than flick the surface. The angle of the cane is variable and adjusted to the stride-length. The cane needs to be held firmly enough for relevant information to be transmitted, yet lightly enough to prevent the rest of the body from being jarred when the cane makes contact. The client has to learn to "stay behind the cane" i.e. not to allow the cane to drift laterally without being aware of it, for only with the cane held in midposition, or at least only by maintaining a symmetrical movement, can forward progress be ensured. A good many of the traditional hazards of the blind man can be dealt with by enabling just enough early warning to be given through the cane: the sudden drop, however shallow, or the low railing undetectable by any other means, the rising or descending stairs; the bicycle left leaning against the wall; the toy or basket on the floor. The cane is used in yet another mode to sense the environment when in doubt. A blind person walking along a broadish pavement with frequent breaks along the walls is apt to wander into gardens and up garage drives. The cane, used with a gently sweeping motion can help him find "touch" again without leaving the last safe position reached or without losing orientation even further.

But cane-handling is only the basis of the training on which every possible means of extracting non-visual information from the environment is built - made more easy because the

confidence provided by good cane-handling can free the user's mind from some of the anxiety almost inevitable with blind travel. Ideally, use of all the remaining senses is taught and encouraged: of hearing in its varied modes; of touch; of smell; of temperature sense - anything in isolation or in combination. For at best blind travel is like flying on poor instruments and continued vigilance is the price of safety.

On top of this, the client can be taught the drills to deal with sighted help and public transport; a host of other drills to deal with specific situations likely to be encountered: disposing of the cane when sitting in a bus or working out the traffic pattern at a light-controlled junction; "squaring up" with cane and feet against the kerb to ensure a straight crossing of the street; making use of the feel of camber of street or pavement to correct a veer; walking with a sighted guide and entering cars.

The training starts at the simplest, pre-cane level within a familiar room and along safe corridors. Cane-handling is introduced and with it the first problem of finding your way along a set of corridors by memorising turns and learning simple landmarks. And so, step by step via simple quiet environments to the busiest town-centre, until at the very end the trainee may be given a series of "drop-offs" to test his skill: he will be left somewhere within a familiar area, told to establish his present position and make his way to some stated destination.

The training is given on a one-to-one basis by sighted instructors, themselves trained to the highest levels of competence under the blindfold. Training lasts some three months or some 100 hours sensibly spread out, but not all learn at the same rate and by no means all go through to the top levels of skill. For many the ability to move by themselves safely and comfortably through familiar environments, perhaps even only through their immediate neighbourhood, has made a world of difference; the ability to visit friends, shops, or the pub without having to wait for someone to take you there may open up new worlds as much as the ability to go shopping by yourself again in the town-centre.

By now, there are some two to three hundred people in this country who have undergone the training. RNIB and St. Dunstan's provide it on a residential basis at their rehabilitation centres while an increasing number of local voluntary or statutory bodies are providing it at non-residential levels. Schools for the blind have also started to provide this form of training. Thus, everything considered, a remarkable change has taken place within the past four to five years - a change which means that by now any blind person passing through one of the rehabilitation centres will have a chance to acquire a most useful skill at the cost, primarily, of accepting a fairly concentrated form of training. In cold figures it costs something like £200 to £300 to train a blind person in the first instance.

A brief word about the instructors. In the U.S. they undergo a one year's post-graduate course leading to an M.A. Here, de facto, the course offered is roughly at the polytechnic level, comparable to that for certain specialists in the Home and the Health Service. Apart from considerations of physical fitness and good eyesight (at the very least good enough to be able to ensure the safety of the client under training from a reasonable distance), one is looking for candidates with at least five O-levels. The main course lasts six months. The first half of this is spent primarily in acquiring the skill under the blindfold and in attending courses of lectures, while the second half is predominantly taken up by supervised teaching practice. This latter part can be waived for those candidates with previous experience in work with the blind. The trend at the moment is to the creation of a new specialist service in all the fields providing services for the blind and to recruit new personnel rather than to train existing staff.

The role of the instructor is threefold: to teach the actual skill; to act as an essential

provider of "knowledge of results"; and to ensure the safety of the client under training. In my opinion it is crucial that the standard of teaching now provided by these instructors is maintained and if at all possible, increased, and that their status becomes formally recognised as soon as possible by making the present instructor-training facility at Birmingham a recognised part of Further, and eventually, Higher Education.

I say all this advisedly because while we must be deeply grateful for the changes which have taken place, we must also recognise that we still have a long way to go before mobility training for the blind is given the full and proper attention it demands. For a long time I have argued that it should be seen in the context of other severe disabilities affecting locomotion, and that the budgeting made available for it and the level of professional competence involved is commensurate. As matters stand, we have to recognise that mobility is a hard skill to master and to maintain for a blind person if it is to be carried out at the sort of standards which are potentially possible. This makes it essential firstly that clients passing out from training do so at sufficiently high levels of competence to make the continued performance of the skill self-rewarding; and secondly that provision is made for two levels of after-care once clients have completed their training; one is purely at the skill level while the other is more of a welfare problem. Mobility for a blind person, like a good many other skills, is apt to deteriorate rather rapidly after training, but in this particular case deterioration is likely to mean increased difficulty in performance and this in turn will lead progressively to less and less usage of the skill, and to still further deterioration. This may present little problem to those who have to use their skill to get to work or to satisfy other interests - the guide dog users have a more or less built-in exercise period of one hour a day to help overcome the problem - but a good many of the blind people we have seen going through training up to now may well require a measure of the second kind of aftercare. For many years they may have accepted their lack of independent mobility and because of this not have taken part in the general life of the community. They may need help in establishing or re-establishing the kind of social contacts which we sighted people take for granted.

If one's major concern must be the maintenance and enhancement of training and performance standards, there are two other points which need to be made. Nobody wants to force any blind person to become independently mobile if they do not wish it - though the knowledge that it is possible to attain measures of independence may well help to persuade people to undergo training. Secondly, because blind people are like everybody else, they are also different from each other. They are entitled, not only to be given the option of being taught how to become mobile; they are also entitled to be given viable choices of modes of training. For some, guide dogs may be the answer; for others their existing and largely self-taught modes; for others again long-cane orientation/training. Until such time when it will truly be possible to provide visual prostheses, our task is very much one of finding out viable alternatives and providing the most comprehensive information to those who need to know.

Having said this, it is only fair to say that one has reason to believe that for some considerable time to come long-cane orientation/training is likely to be the most satisfactory answer for the widest range of blind people. With a little bit of luck we may soon see the Sonic Aid and the training developed for it offer yet another option to at least some blind people - but that is another story.

Referencee:

Le Gros Clark, F., 1969, Blinded in War, Priory Press, Royston, Herts.
Thornton, W., 1968, Cure for Blindness, Hodder and Stoughton, London.



1



2



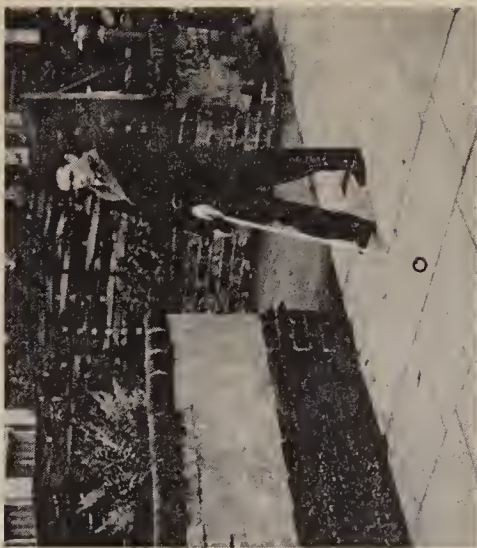
3



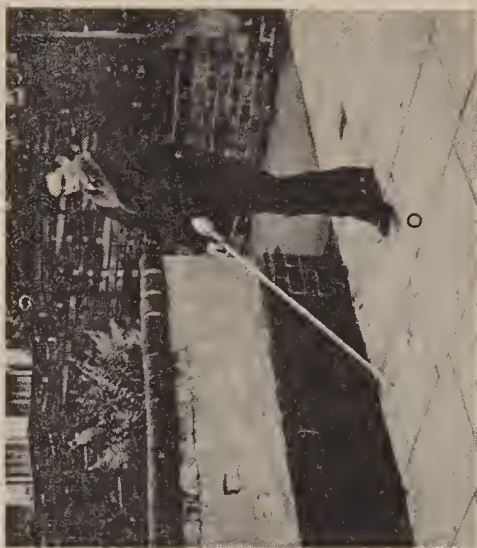
4



5



6



7

HV1708

c.1

L552 Leonard, J. Alfred.

L850 LONG CANE/ORIENTATION TRAINING
FOR BLIND PEDESTRIANS.

Date Due (1969)

HV1708

c.1

L552

L850

Leonard, J. Alfred.

LONG CANE/ORIENTATION TRAINING
FOR BLIND PEDESTRIANS.

(1969)

DATE	ISSUED TO
	<i>Reference Copy</i>

AMERICAN FOUNDATION FOR THE BLIND
15 WEST 16th STREET
NEW YORK, N. Y. 10011

